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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,816	04/26/2005	Masashi Yoshimura	050403	8952
46064 7590 07/02/2008 LAU & ASSOCIATES, LLC MICHAEL N. LAU 2121 EISENHOWER AVENUE SUITE 503A ALEXANDRIA, VA 22314				
EXAMINER				
KRAMER, DEVON C				
ART UNIT		PAPER NUMBER		
3746				
MAIL DATE		DELIVERY MODE		
07/02/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/532,816

**Applicant(s)**

YOSHIMURA, MASASHI

**Examiner**

DEVON C. KRAMER

**Art Unit**

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 3/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claims 4 and 7 are objected to because of the following informalities:

Claim 6 line 2, "rotors is" should be --rotors are--;

Claim 7 line 2, "rotors is" should be --rotors are--;

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-6 and 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following terms lack antecedent basis:

Claim 4 lines 3-4, recites "the rotating speed up gear" which should be --a rotating speed up gear--;

Claim 4 line 4, recites "the rotational force transmission parts" which should be --as rotational force transmission parts--;

Claim 4 line 8, "the duplex tube structures" should be --a duplex tube structure--;

Claim 5 line 2, "said rotating speed up gear section" should be --a rotating speed up gear section--. It is assumed that claim 5 should depend from claim 4;

Claim 5 line 3, "the timing gear section" should be --a timing gear section--;

Claim 6 line 3, "the time gear section" should be --a timing gear section--;

Claim 9 line 18, "the rotating speed up gear" should be --the rotating speed up gear--;

Claim 9 line 19, "the rotational force transmission parts" should be --rotational force transmission parts--;

Claim 9 line 20, "the timing gear structure" should be --timing gear structure--;

Claim 10 line 17, "said rotating speed up gear section" should be --a rotating speed up gear section--;

Claim 10 line 18, "the timing gear section" should be --a timing gear section--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 3 and 6-7 are rejected under 35 U.S.C. 102(a) as being anticipated by Kriehn et al (WO 03/042542). Please note that US PGP 20050019169 has been used as an English equivalent. .

IN re claims 1, 3, Kriehn et al teaches an air cooled dry vacuum pump comprising: a casing having an inlet (5) for a fluid; an outlet (paragraph 0015) for a fluid; an air supplying means (21) provided at one end in an axial direction of the casing; an inner tube (2); an outer tube (22) provided around a pair of rotors (3) with two different

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axes rotated by a motor (9) as a driving source of rotation, the pair of rotors being housed in the casing so as to be received rotatably in the inner tube; an air duct through which cooling air supplied by the air supplying means flows along an axial direction in-between the inner tube and the outer tube.

In re claims 6 and 7, Kriehn et al teaches first and second roller bearings as shown in the figures but not labeled and a timing gear section (16, 17).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kriehn et al (WO 03/042542) in view of Takabe et al (5655782)

In re claims 2, 4, 9, Kriehn et al teaches an axial air duct along a heat generating member including a motor, rotational force transmission parts (11, 16, 17) including a timing gear (16, 17) and plurality of roller bearings supporting the shafts. Kriehn lacks the teaching of a speed up gear. IN re claim 9, note the limitations recited above in the 102 rejection.

Takabe teaches a vacuum pump with a speed up gear (18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the device of Kriehn with a speed up gear as taught by

Takabe et al to increase the speed of the pump depending on the motor used and the desired speed of the rotors.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kriehn et al (WO 03/042542) in view of Shiinoki et al (4767284).

Kriehn lacks the teaching of a sound absorbing material.

Shiinoki teaches a sound absorbing material (20) covering an outer wall of the casing.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the casing of Kriehn with sound absorbing material as taught by Shiinoki merely to insulate the noise produced by the machine and to prevent noise pollution.

#### ***Allowable Subject Matter***

Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

#### ***Response to Arguments***

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Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication should be directed to DEVON C. KRAMER at telephone number (571)272-7118.

/Devon C. Kramer/  
Supervisory Patent Examiner, Art  
Unit 3746